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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

WERNER, JONATHAN S

ART UNIT PAPER NUMBER

3732

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/749,918	<b>Applicant(s)</b> REISING, BRIAN C.	
	<b>Examiner</b> Jonathan Werner	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23,30-35 and 53-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23,30-35 and 53-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to Applicant's amendment received on 7/10/06.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 53-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 53, Applicant states that the "bracket is positionable in free space ... with no part of the bracket between an open side of the opening and the tooth." It is not clear what the "open side of the opening" is.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-12 and 14-15, 17, 19-20, 30 and 33-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Takemoto (US 6,264,468). As to claim 1, Takemoto discloses an orthodontic bracket (28) for use with a wire to reposition a tooth comprising a body (31) defining a coextensive opening (29,30), wherein the body does not have a base with a surface area for bonding directly to the tooth (i.e. Figures

Art Unit: 3732

1,15,22B), and wherein the position of the opening is fixed and the bracket is positionable at an angle relative to the tooth surface without any part of the body creating a lever arm with the tooth surface (Figure 1). As to claim 2, Figure 1 shows the body comprises a gingival sidewall (top surface of 33), an occlusal sidewall (bottom surface of leg 32), and a lingual sidewall (right surface of body 31) that define an opening (29,30) that is open on a tooth side. As to claim 3, Figure 22B shows the body has a low profile width that is equal to a depth of the opening plus a thickness of the lingual sidewall. As to claim 4, Figure 1 shows the bracket is positionable offset from the tooth or adjacent to the tooth, wherein no part of the bracket contacts the tooth when the bracket is offset from the tooth (Figure 1), and the sidewalls contact the tooth when the bracket is adjacent to the tooth (column 5, lines 65-67 & column 6, lines 1-5). As to claim 5, Figure 1 shows the opening (29) is rectangular and remains level when the bracket is positioned adjacent to or offset from a vertical or non-vertical surface of the tooth. As to claim 6, Figures 1 and 22B show the occlusal sidewall has a length that is greater than a length of the gingival sidewall (i.e. Figure 22B when flipped upside down strongly resembles Figure 2 of Applicant's invention). As to claim 7, the body comprises one or more retention wings (32 and wing portion to the right of slot 36) extending therefrom. As to claim 8, Figure 22B shows the body has a low profile width that is equal to a depth of the opening plus a thickness of the lingual sidewall plus a horizontal extension of the wings. As to claims 9 and 10, Figures 1 and 14A show the opening is rectangular and the wings are angled relative to the opening and that the wings are curved away from the tooth as they extend away from the opening. As to

Art Unit: 3732

claims 11 and 12, Figure 17 shows two similar brackets with wings such that one of the wings extends from a gingival sidewall of the body and is curved back as the wing extends away from the opening, and another of the wings extends from an occlusal sidewall of the body and is curved back/forward as the wing extends away from the opening. As to claim 14, Figure 14A shows a portion of the body and the opening is curved laterally. As to claim 15, the body defines a second coextensive opening (Figures 1,14A,22B). As to claims 17, 19, 30 and 33, adhesive is bonded to the tooth and the bracket on a lingual surface of the tooth (column 10, lines 63-67). As to claims 20 and 34, Figures 15 and 16 show an orthodontic appliance (27,28) attached to a plurality of teeth, wherein at least one of the attachments is attached to a lingual surface of a front of one of the teeth.

4. Claims 1 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Cash (US 5,616,026). Cash discloses an orthodontic bracket (10) for use with a wire to reposition a tooth comprising a body (14) defining a coextensive opening (30), wherein the body does not have a base with a surface area that bonds directly to the tooth (Figures 4D-4F) and wherein the body defines notches (66).

5. Claims 1, 16 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe (US 5,230,620). Watanabe discloses an orthodontic bracket for use with a wire to reposition a tooth comprising a body (2) defining a coextensive tubular opening

Art Unit: 3732

(3,4), wherein Figure 1 shows the body does not have a base with a surface area that bonds directly to the tooth (column 1, lines 4-31).

6. Claims 53-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Piekarsky (US 4,533,320). Piekarsky discloses an orthodontic bracket (36,36) for use with a mass of adhesive (40) and a wire (32) to reposition a tooth having an overall anatomy, the bracket comprising a body defining a coextensive opening (i.e. 48) for receiving the wire (Figures 2 & 5), wherein the bracket is adapted to be embedded into the adhesive in a position that is offset from the tooth with the opening exposed so that the wire can be inserted therethrough (Figures 2-3), wherein the bracket does not have a base plate with a surface area for bonding directly to teeth (Figures 2-3), wherein the bracket does not have an offset arm extending from the body for offsetting the opening from the tooth (Figures 2-3), and wherein the bracket is positionable in free space when applied to a tooth (Figures 2-3). As to claims 54 and 57, the body comprises one or more retention wings (46, Figure 5) extending therefrom, said wings adapted to provide a surface area for bonding to the adhesive mass (Figures 2-3). As to claim 55, the body comprises a gingival sidewall, an occlusal sidewall, and a lingual sidewall therebetween (i.e. Figure 5) that cooperatively define the opening in the form of a slot (48) with an open tooth side, and wherein when the bracket is embedded in the adhesive mass then the adhesive mass closes off the open side of the opening (Figure 1). As to claim 56, Piekarsky further shows said sidewalls of the body define a coextensive opening (48) with an open side and two open ends for receiving the wire, wherein the adhesive mass

Art Unit: 3732

closes off the open side of the opening but leaves the open ends exposed so that the wire can be inserted (Figures 2), wherein the bracket is positionable at an angle relative to a surface of the tooth (Figure 3) and wherein no part of the bracket is between the open side of the opening and the tooth (Figures 2-3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 18 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemoto in view of Sahagian (US 6,299,438). Takemoto discloses an orthodontic bracket for use with a wire to reposition a tooth as previously described, but fails to show adhesive that encapsulates the bracket except for the opening. Sahagian, however, teaches a dental article that comprises an adhesion layer coating (column 4, lines 1-3). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to encapsulate the bracket within an adhesive layer so that another layer, i.e. a friction-reducing layer, could be further applied as taught by Sahagian.

8. Claims 21 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemoto in view of Fujita (US 4,354,833). Takemoto discloses an orthodontic

Art Unit: 3732

bracket for use with a wire to reposition a tooth as previously described, but fails to show at least one other of the attachments is attached to a facial surface of a back one of the teeth. Fujita, however, teaches an orthodontic appliance that can be applied to the lingual or facial surfaces of the teeth (Figures 1 and 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to have one other of the attachments attached to a facial surface of a back one of the teeth in order to correct teeth misalignment as taught by Fujita.

9. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takemoto in view of Rosenberg (US 4,712,999). Takemoto discloses an orthodontic bracket for use with a wire to reposition a tooth as previously described, but fails to show a clip configured to hold the bracket during attachment. Rosenberg, however, teaches an orthodontic bracket with a clip (Figures 1-3) whereby the clip comprises a finger (8) that is receivable (Figure 2) in the bracket opening (7) and a handle portion (4), whereby the clip finger is capable of blocking the opening to prevent intrusion of an adhesive mass. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to use a clip with the bracket of claim 1 in order to promote cleanliness and provide cosmetic advantages as taught by Rosenberg. Examiner notes preventing intrusion of an adhesive mass into the opening by the clip finger is considered a recitation of intended use, whereby such recitations and other functional statements do not impose any structural limitations on the claims and are hence given little patentable weight.



***Response to Arguments***

10. Examiner herein acknowledges and approves all correction to the drawings, specification, and claims rejected under 35 U.S.C. 112 and 35 U.S.C. 101. Accordingly, all previous objections to the drawings, specification, and claims rejected under 35 U.S.C. 112 and 35 U.S.C. 101 have been withdrawn. However, new rejections under 35 U.S.C. 112 are pending as detailed above.

11. Applicant's arguments filed 7/10/06 with respect to claims anticipated by Takemoto have been fully considered but they are not persuasive. Applicant remarks that Takemoto can not anticipate the present invention since the bracket body of the present invention "does not have a base with a surface area for bonding directly to the tooth," and wherein Takemoto discloses "a bracket-like device having a conventional plate-like mounting base that is designed specifically for providing a large, broad surface area for bonding the bracket directly to the tooth." Examiner points out that the "plate-like mounting base" as stated by Applicant is an attachment to the bracket body. Figure 22B of Takemoto shows an embodiment wherein said plate-like base is not attached to the bracket body. Although the attached pad (13) is shown bonded to a tooth in Figure 1 of Takemoto, the actual "bracket body" of Takemoto is never shown having a base surface that is bonded "directly" to the tooth, but is instead attached to said pad. Similar arguments can be made for both Cash and Watanabe, the rejections of which are described above. Examiner notes in the case of claim 1, nearly any

Art Unit: 3732

tangible bracket used in the art has some sort of base with a surface. The way Applicant claims the bracket is bonded to the tooth, however, is a recitation of the intended use of the claimed invention and must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

12. As to claim 3, Figures 22A and 22B illustrate in millimeters that the depth of the opening is approximately 1.50 mm and the thickness of the lingual sidewall is approximately 0.40 mm for a combined length of 1.90 mm, while the width of the body is approximately 1.20 mm, whereby Takemoto explicitly discloses in column 13, lines 44-46 that the configuration and Figures shown may be altered to some extent. The width of 5.4 mm as pointed out by Applicant is actually the entire side length of Takemoto's bracket.

13. As to claim 4, Examiner notes that the claim language states "the bracket is positionable offset from the tooth or adjacent to the tooth." Applicant remarks that Takemoto "only shows the bracket positioned adjacent the tooth." Because of the use of the word "or" in the claim, only one condition needs to be satisfied – i.e. positioning the bracket adjacent the tooth.

Art Unit: 3732

14. In regard to claim 5, Applicant remarks that Figure 5 of Takemoto does not show the brackets or openings. However, the previous Office Action actually states that Figure 1 shows said features (paragraph 8). Furthermore, as to claims 17 and 30, Applicant never specifically claims in detail which parts of the bracket are embedded in the adhesive or if it is the bracket as a whole. Applicant remarks that Takemoto does not disclose embedding the bracket into a mass of adhesive. However, as defined by Applicant, embedded means that the bracket can be "sunk into but not completely covered; fixed firmly in surrounding mass." The application of adhesive to the bracket as described by Takemoto above fits this description.

15. Lastly, in response to applicant's argument that Sahagian only teaches the use of "adhesion layers," the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

16. Examiner further notes that Applicant has claimed statements of intended use and other functional statements throughout various claims (i.e. in claim 1: "wherein the bracket is positionable at an angle relative to the tooth surface without any part of the body creating a lever arm against the tooth surface"). Such recitations of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from

Art Unit: 3732

the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

17. As an aside, though the current view of the courts is that there is nothing inherently ambiguous or uncertain about a negative limitation – so long as the boundaries of the patent protection sought are set forth definitely, albeit negatively – the heavy reliance on said negative limitations by Applicant has broadened the scope of some of the claims as seen in the rejections above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 3732


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jonathan Werner  
Examiner  
TC 3700

9/20/06

  
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PRIMARY EXAMINER